

Probiotics for plants: NO-producing lactobacilli protect plants from drought

Yarullina D., Asafova E., Kartunova J., Ziyatdinova G., Ilinskaya O.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

After the inoculation of wheat roots with a suspension of the bacterium *Lactobacillus plantarum*, reduction or decrease of oxidative stress detected by the accumulation of H₂O₂ and MDA was found in leaves. Activation of catalase and increased integral antioxidant capacity in seedlings treated with NO-producing lactobacilli were detected during the determination of the contribution of bacterial NO to the plant stress reaction. Thus, for the first time, we have demonstrated that lactobacilli affect plant adaptive responses to stress by the involvement of nitric oxide. © 2014 Pleiades Publishing, Inc.

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